

What is claimed is:

1. A composition comprising:  
at least one thermoplastic elastomer having at least one  
elastomeric phase and at least one thermoplastic phase, wherein the at least one  
5 thermoplastic phase comprises at least one propylene-based polymer and the at  
least one elastomer phase comprises a styrenic copolymer rubber phase or an at  
least partially crosslinked ethylene-propylene-diene rubber phase; and  
at least one nucleating agent for formation of nucleation sites for  
crystal growth within the thermoplastic phase of the thermoplastic elastomer.  
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2. The composition of claim 1, wherein the at least one nucleation  
agent is dispersed within the at least one thermoplastic phase.
3. The composition of claim 1 or claim 2, wherein the  
15 thermoplastic elastomer comprises at least two chemically distinct thermoplastic  
phases.
4. The composition of any of claims 1-3,  
wherein the thermoplastic phase comprises a continuous phase and the  
20 elastomer phase comprises a discontinuous phase dispersed in the continuous  
thermoplastic elastomer phase;  
wherein the nucleating agent comprises a nucleating talc, titanium  
phosphate, glass powder, an aluminum inorganic, a benzoic acid or an  
aluminum or sodium salt thereof, a dibasic or monobasic acid salt, an alicyclic  
25 acid salt, a polyacrylic acid derivative, a phosphate ester, a sorbitol derivative,  
or combinations thereof.
5. The composition of claim 4, wherein the nucleating agent  
comprises sodium benzoate, a sorbitol derivative, an organic phosphate ester  
30 salt, an acrylic acid-grafted polypropylene, a nucleating talc, or combinations

thereof, and wherein the composition comprises about 0.005% to about 5% by weight nucleating agent based on total weight of the thermoplastic phase in the thermoplastic elastomer.

5           6.       The composition of claim 4 or claim 5, wherein the thermoplastic elastomer comprises at least one thermoplastic phase of polypropylene; and wherein the thermoplastic elastomer comprises styrene-butadiene (SB) rubber, styrene-ethylene-butadiene-styrene (SEBS) rubber, styrene-ethylene-propylene-styrene (SEPS) rubber, styrene-isoprene-styrene  
10       (SIS) rubber, styrene-ethylene-ethylene-propylene-styrene (SEEPS) rubber, styrene propylene-styrene (SPS) rubber, hydrogenated versions of the foregoing, or combinations thereof.

          7.       The composition of claim 6, wherein the thermoplastic elastomer  
15       has been melt-processed into an article and the nucleating agent has enhanced the rate of crystal formation in the thermoplastic phase of the thermoplastic elastomer during cooling of the thermoplastic elastomer to achieve a solid crystal structure in a shorter time as compared to melt-processing of the thermoplastic elastomer without the nucleating agent.

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          8.       The composition of claim 6, wherein the article has enhanced transparency as compared to an article formed from a composition without the nucleating agent.

25           9.       An article comprising the composition of any of claims 1-6.

          10.      A method of making the composition of any of claims 1-6, the method comprising:

mixing the at least one nucleating agent with at least one component of the thermoplastic elastomer to form a composition transformable into the thermoplastic elastomer;

5 forming the thermoplastic elastomer having the at least one nucleating agent dispersed therein by causing the at least one thermoplastic phase of the thermoplastic elastomer to melt such that the at least one nucleating agent becomes substantially dispersed within at least one thermoplastic phase of the thermoplastic elastomer.

10 11. A method of using a nucleating agent to enhance rate of formation of a solid crystal structure in a thermoplastic elastomer, comprising the steps of:

adding a nucleating agent to a thermoplastic phase of a thermoplastic elastomer to form the thermoplastic elastomer composition of any of claims 1-6;

15 melt-processing the thermoplastic elastomer composition;

permitting the thermoplastic elastomer composition to cool, wherein the nucleating agent stimulates formation of a solid crystal structure within the thermoplastic phase of the thermoplastic elastomer composition more rapidly than if the nucleating agent were not present.